UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,176	03/02/2004	Kenichi Iizuka	108273-00006	3546

4372	7590	02/21/2007	EXAMINER

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EXAMINER
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ART UNIT	PAPER NUMBER
2182	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/21/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	10/790,176	IIZUKA ET AL.
	Examiner	Art Unit	
	Jasjit S. Vidwan	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *13 November 2006*.

2a) ☒ This action is **FINAL.**   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-29* is/are pending in the application.

     4a) Of the above claim(s) *11-29* is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-10* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *02 March 2004* is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a) ☒ All   b) ☐ Some *   c) ☐ None of:

       1. ☐ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____.

       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for

the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) The invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA)

and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when

the reference is a U.S. patent resulting directly or indirectly from an international application filed before

November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e)

prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2.   Claims 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by

Preiss et al, U.S. Patent No: 6,757,763 **[herein after Preiss]**.

3.   **As per claims 1, 6 and 7**, Preiss teaches an information-processing unit **[Fig. 1, element 100]**

for carrying out information processing in cooperation with an external host **[Fig. 1, element 103]**

apparatus connected thereto via an external connection bus **[Fig. 1, element 107]**; comprising:

    a. Internal CPU **[Fig. 1, element 102, "UDC"]**

    b. Receive buffer for storing only receive data received from said external host apparatus **[Fig. 2b**

    & 8, element 800, "8-Byte Receive FIFO"]

    c. Receive register **[Fig. 8, element 802,** *RFRSM is a state machine which retains information*

    *and therefore anything that retains information has memory (register)***]** for storing only receive

    communication control information concerning the receive data **[Col. 6, Lines 54-60 and also**

    see Col. 6, Line 64-Col. 7, Line 7 – *RFRSM manages the communication control information for*

    *data transfer between the Receive FIFO and the RXRR register***]**

d. Transmit buffer for storing only transmit data transmitted from said internal CPU via an internal

bus **[Fig. 2b, element 300]**

e. Transmit register **[Fig. 4, element 302,** *TFWSM is a state machine which retains information*

and therefore anything that retains information has memory (register)] for storing only transmit

communication control information concerning the transmit data **[see Col. 5, Lines 46-59;**

TFWSM manages the communication of the communication data]

f. Control circuit **[Fig. 1, 105, "EPEC"]** for passing the receive data stored in said receive register

to said internal CPU and passing the receive communication control information stored in said

receive register to said internal CPU **[Col. 3, Line 50 – Col. 4, Line 16, 'IN Transaction (Device**

to host)], and further passing the transmit data stored in said transmit buffer to said external host

apparatus and passing transmit communication control information stored in said transmit register

to said external host apparatus **[Col. 4, Lines 17-54, "Out Transaction (Host to Device)]**.

4.   **As per claim 2**, Preiss teaches an inter-bus communication interface device wherein said buffer

is of a type that outputs data in the order that the data are stored **[Col. 1, Lines 35-40, "FIFO –First in**

First Out"].

5.   **As per claim 3**, Preiss teaches an inter-bus communication interface device wherein said buffer

includes a plurality of buffer areas, said buffer areas being alternately [As data moves across buffer

areas, the location the data is stored will be alternately changed through the buffer] used in storing the

communication data **[Col. 2, Lines 50-56]**.

6.   **As per claim 4**, Preiss teaches communication interface device wherein said control circuit

outputs an interrupt signal to the second device immediately after the communication control information

is stored in said register **[Col. 3, Lines 1-8]**.

7.   **As per claim 5 and 9**, Preiss teaches communication interface device further including a status

register for storing information indicative of whether or not un-transmitted data exists in said register **[Col.**

5 Lines 26-35] and wherein said control circuit updates the information in said status register, when new

data is stored in said register, or when data in said buffer is read out by the second device **[Col. 5, Lines**

41-45].

8.   **As per claim 8**, Preiss teaches information processing unit wherein said control circuit outputs an interrupt signal to said internal CPU, when said receive buffer is full of the receive data, or when the receive communication control information is stored in said receive register **[Col. 5, Lines 26-35]**.

9.   **As per claim 10**, Preiss teaches information processing unit wherein said control circuit outputs a transmit data-related request signal for requesting reception of the transmit data, to said external host apparatus, when data is stored in said transmit buffer or said transmit register **[Col. 3, Lines 51-59]**.

Response to Arguments

10.   Applicant's arguments with respect to claim 1-10 have been considered but are moot in view of the new ground(s) of rejection. **(See reasons for finality below)**

Conclusion

11.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. *Prior to the submitted amendment, the claim only required a "buffer for storing communication data" and "a register storing communication control information" which was provided by Preiss as previously cited. The registers (308 and 806) not only stored the communication data but also the headers, the destination along with the data. Due to the amendment, Examiner was forced to interpret the claims differently than before.* See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jasjit S. Vidwan whose telephone number is (571) 272-7936. The examiner can normally be reached on 8am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KIM HUYNH can be reached on (571) 272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JSV
2/5/07

KIM HUYNH
SUPERVISORY PATENT EXAMINER
2/5/07